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EXAMINER

LONEY, DONALD J

ART UNIT PAPER NUMBER

1772

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Continuation of Attachment(s) 6). Other: Copy of translation of JP 05-090708.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in the reply filed on November 9, 2005 is acknowledged.

Drawings

2. Figures 8, 9A and 9B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 2, claim 2, lines 1 and 2 and claim 3 line 4, it is unclear as to the meaning of "blanked", "preblanking" and "postblanking". These appear to be process

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limitations and it is unclear as to the structure, if any, imparted thereby to the product. In claim 1, last line, an offset is recited. It is unclear as to the structure thereof. In the claim the layers are recited as laminated, therefore, how are they offset? From the applicant's figure 3 it appears the offset (δ) is just the depth of the recesses formed in the wavy surface 24s. The two resins appear laminated at 24b, which there is no offset.

Clarification is kindly requested.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Prophet (5413743).

Prophet discloses a first resin layer 12 laminated to a second resin layer 14. The second resin layer has portions (i.e. wavy surface as explained above) extending toward the first resin layer. Refer to figures 6B and 7B. The layers are deemed offset (i.e. spaced) due to the chamber formed there between. Regarding claims 2 and 3, it is unclear as to the structure, if any, these process limitations produce. Regarding claim 7, the portion comprises the boundary where the layers are offset.

7. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Walsh (4654761).

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Walsh discloses a first resin layer 42 laminated to a second resin layer 40. Refer to figures 2, 3, 4 and 6. The second resin layer has portions (i.e. wavy surface as explained above) extending toward the first resin layer. The layers are deemed offset due to the spacing there between. Regarding claims 2 and 3, it is unclear as to the structure, if any, these process limitations produce. Regarding claims 5 and 6, figures 4 and 5 can be used. In this arrangement, 140 can be considered the first layer, which has black portions, and 142 can be considered the second clear layer, which has portions extending toward the first layer due to the wavy structure 184. Also refer to column 4, lines 12-55 and column 6, lines 29-68. Regarding claim 7, the portion comprises the boundary where the layers are offset

8. Claims 1-3 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 05-090708 cited by the applicant.

JP 05-090708 discloses a first resin layer 6, laminated to a second resin layer 5. The second resin layer has portions (i.e. wavy surface as explained above) extending toward the first resin layer. Refer to figures 4, 5, 6 and 8. The layers are deemed offset due to the second layer containing a wavy structure as explained above and shown in applicant's figure 3 to be the offset portion. Regarding claims 2 and 3, it is unclear as to the structure, if any, these process limitations produce. Regarding claim 7, the portion comprises the boundary where the layers are offset. The examiner has supplied an English language translation for the applicant's convenience. It appears from the specification that the applicant's invention is in the process for forming the article, in that the resins are kept apart (i.e. offset) during the manufacturing thereof in order to keep

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the resins from mixing, but, the final structure (i.e. laminated) as recited, would not distinguish from JP 05-090708.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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12. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05-090708.

The primary reference teaches the invention substantially as recited except for the specific degree of offset (claim 4) and colors of the layers (claims 5 and 6). JP 05-090708 is silent as to the offset. JP 05-090708 does disclose that the maker can decide the colors for a particular application (see last two sentences of paragraph [0011]) See the 35 U.S.C. 102 rejection above.

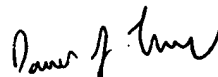
Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to JP 05-090708 to form the layers of the colors as recited motivated by the fact it is disclosed that they can be chosen to fit a particular application. The degree of offset per claim 4 is deemed obvious to one of ordinary skill in the art motivated by the fact the reference teaches the same type of offset (i.e. wavy structure) that the applicant discloses, but is silent as to the degree.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-1493. The examiner can normally be reached on Mon, Tues, Thurs and Fri. 8AM-4PM, flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Art Unit 1772

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01/20/06

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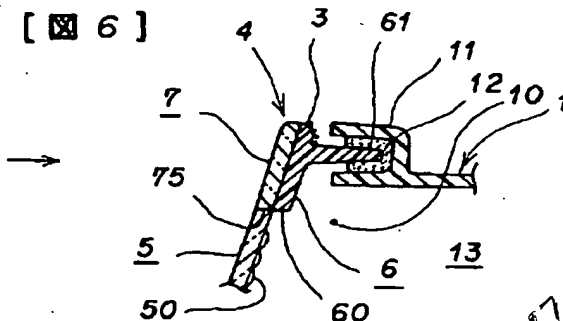
(54)【考案の名称】 車両用装置

(57) 【要約】

【目的】 レンズ4の縁部の見栄えが良い車両用装置を提供することにある。

【構成】 第1レンズ部5と第2レンズ部6と第3レンズ部7との多層成形からなるレンズ4のうち、少なくとも縁部の裏面側の部分であって脚部61、55の周辺部（第2レンズ部6に対応する部分）を、不透明の材料で成形する。この結果、脚部61、55の付け根が不透明の材料の部分で隠されるので、レンズ4の表面側を見ても、脚部61、55の付け根が見えない。また、レンズ4の縁部の裏面側であって脚部61、55より外側の部分に泥等が付着したとしても、その部分は不透明の材料の部分で隠されるので、レンズ4の縁部の汚れが目立たない。従って、レンズ4の縁部の見栄えが良い。

[6]



+ 1, 2, 3, 4, 5, 6, 7

(57)

[ABSTRACT]**[PURPOSE]**

It is to provide a device for vehicles that a look of an edge of lens 4 is preferable.

[CONSTITUTION]

At a minimum, it is a part of a back side of an edge, and, among the first lens part 5 and the second lens part 6 and lens 4 comprising multilayered molding with the third lens part 7, bent 61, 55 penumbras (a part corresponding to the second lens part 6) are molded in materials of opacity. As a result of this, Even if the front of lens 4 is watched in bent 61, 55 roots being covered with a part of materials of opacity, I do not see bent 61, 55 roots. In addition, Even if it was a back side of an edge of lens 4, and mud bonded to an outside part than bent 61, 55, the part is hidden with a part of materials of opacity. Hence: A dirt of an edge of lens 4 is not outstanding. Thus, A look of an edge of lens 4 is preferable.

[CLAIM FOR THE UTILITY MODEL REGISTRATION]**[Claim 1]**

The housing that provided a relationship of an aperture with recess, A lens comprising the multilayered molding that provided the back side of an edge with a bent is included, in the vehicle business device that a bent of said lens is loaded in a reentrant of an above housing, and it is, A device for vehicles, wherein; At a minimum, it was a part of a back side of an edge, and, among lenses comprising said multilayered molding, perimeter of said bent was molded in materials of light impermeableness.

[BRIEF DESCRIPTION OF DRAWINGS]**[FIG. 1]**

It is shown to that example of the first of a device for vehicles of the present invention, it is a front elevation of the first lens part

[FIG. 2]

Similarly a front elevation of the state that multi-layer molded the second lens part as in the first lens part

[FIG. 3]

Similarly a front elevation of the state that multi-layer molded the third lens part as in the first lens part and the second lens region

[FIG. 4]

An IV-IV Line sectional view in FIG. 3

[FIG. 5]

A V-V Line sectional view in FIG. 3

[FIG. 6]

Similarly a one part expanded sectional view of an essential part of the state that a lens was made, and was added to a housing

[FIG. 7]

It is shown to that example of the second of a device for vehicles of the present invention, it is a one part sectional view of the state that multi-layer molded the second lens region as in the first lens part

[FIG. 8]

Similarly a one part expanded sectional view of an essential part of the state that a lens was made, and was added to a housing

[FIG. 9]

IX *yashizu* in FIG. 8

[FIG. 10]

A one part sectional view of the lens which showed the third example of a device for vehicles of the present invention

[FIG. 11]

A front elevation of a lens of a device for conventional vehicles

[FIG. 12]

A XII-XII Line sectional view in FIG. 11

[FIG. 13]

A XIII-XIII Line sectional view in FIG. 11

[FIG. 14]

Similarly a one part expanded sectional view of an essential part of the state that a lens was made, and was added to a housing

[FIG. 15]

XV *yashizu* in FIG. 14

[DENOTATION OF REFERENCE NUMERALS]

As for one ... housing, ten ... front apertures, 11 ... reentrants, three ... mud, it is four ... lenses, five the first ... lenses region, 50 ... prism elements group, 55 ... bents, six the second ... lenses region, 61 ... bents, 66 ... prism elements group, seven the third ... lenses region, 70 ... prism elements group.

[DETAILED DESCRIPTION OF THE INVENTION]

[0001]

[INDUSTRIAL APPLICATION FIELD]

For example, the present invention concerns a tool for for vehicles such as a front turn signal lamp or fog light light, *riyafinissya*, *ganissyu* housing and a vehicle business device comprising lenses, a look of an edge of a lens is related to a preferable vehicle business device particularly.

[0002]

[PRIOR ART]

As follows, A device for this kind of conventional vehicles is explained referring to figure 11 - figure 15. This example explains an example used for a tool for light for vehicles such as *riyakonbinesyonranpu*. In the drawings, 1 is the housing that opened front 10. All fringes of front opening part 10 of this housing 1 are provided with reentrant 11.

[0003]

In the drawings, it is a lens 2 molds the first lens part 21 and multi-layer with the second lens part 22, and to become. In other words, At first, for example, this lens 2 molds the first lens part 21 (or, the second lens part 22) by injection molding, this the first lens part 21 (or, the second lens part 22) are set at a die next, and similarly, for example, it is injection-molded, and the second lens part 22 (or, the first lens part 21) are molded, is molded multi-layer, and the second lens region 22 (or, the first lens part 21) become the first, as a result of this, lens region 21 (or, the second lens part 22). A synthetic resin (transparent resin is merely feigned as follows.) that light is permeable as for the first lens part 21 *karanari*, all outskirts of the back side of an edge are provided with bent 210, it turns around, and it is crowded, and one end (a thing of this illustration, left end) is provided with department 211, central part is provided with salient 212, the back side of a part to other end was provided with appropriate prism element group 213 from salient 212 of the center. In addition, It turns around, and it is crowded, and the second lens part 22 provides one end (a thing of this illustration, left end) with department 221 from transparent resin, central part was provided with open hole 222. As a result of this, It is crowded bent 210 is had in all outskirts of the back side of an edge and and lens 2 turns around in one end (a thing of this illustration, left end), and department 211 and 221 are had , even more particularly, appropriate prism element group 213 is had on the back side of a part to other end from central part. In addition, The first lens part 21 and colors of the second lens part 22 can be put together for a function of a tool for light to use, and it is decided. By way of example only, It is colored umber in that case of red, a turn signal lamp in the case of a stop lamp and tail lamp, and it is colorlessness in that case of back lamp.

[0004]

Thus, for example, the adhesion seals bent 210 of lens 2 by the twelfth class hot melt in reentrant 11 of housing 1, an image forms lantern 13 with this housing 1 and lens 2, because *hai** does source of light valve (not shown) in the lantern 13, a tool for vehicle business light is constructed as.

[0005]

[PROBLEM TO BE SOLVED BY THE INVENTION]

However, because a device for conventional vehicles molds lens 2 by multi-layer molding with the second lens region 22 of transparency resin as well as the first lens region 21 of transparent resin, and it is, when the front of lens 2 is watched, as shown in a dashed line of the FIG. 15 inside, the root of bent 210 is seen in an edge of lens 2. In addition, When it is a back side of an edge of lens 2, and mud bonds to an outside part than bent 210, there is a problem on a look of an edge of lens 2 to be outstanding a dirt of an edge of lens 2 as shown in points of the FIG. 15 inside.

[0006]

An object of the present invention is to provide a device for vehicles that a look of an edge of a lens is preferable.

[0007]

[MEANS TO SOLVE THE PROBLEM]

The present invention is a part of a back side of an edge among lenses comprising multilayered molding at least, and perimeter of a bent, light impermeableness (merely opacity is feigned as follows.) It is characteristic of that it was molded in *no* materials.

[0008]

[OPERATION]

Even if the present invention watches the front of a lens in the root of a bent being covered with a part of materials of opacity by the constitution, I do not see the root of a bent. In addition, Even if it was a back side of an edge of a lens, and mud bonded to an outside part than a bent, a dirt of an edge of a lens is not outstanding in the part being hidden with a part of materials of opacity. Thus, A look of an edge of a lens is preferable.

[0009]

[EXAMPLE]

As follows, Our 3 examples of an example of a device for vehicles of the present invention are explained referring to an attached drawing. This example explains an example used for a tool for light for vehicles such as *riyakonbinesyonranpu*. In addition, Among figures, figure 11 - FIG. 15 and like signs show the same thing. Figure 1 - figure 6 shows the first example of a device for vehicles of the present invention, as for IV-IV Line sectional view in FIG. 3, FIG. 5, V-V Line sectional view in FIG. 3, FIG. 6 cross a lens in a housing, and front elevation, front elevation of the state that the first lens region amounts to FIG. 3, and multi-layer molded the third lens region as in the second lens region, FIG. 4 of the state that multi-layer molded the second lens region as the first lens region as for front elevation of the first lens region, FIG. 2 as for FIG. 1 are one part expanded sectional views of an essential part of the state that was able to be accompanied.

[0010]

In the drawings, it is the lens that 4 molds the first lens part 5 and the second lens part 6 and multi-layer with the third lens part 7, and it is. In other words, At first, for example, this lens 4 molds the first lens part 5 by injection molding, this the first lens part 5 is set at a die next, and similarly, for example, it is injection-molded, and the second lens region 6 is molded, even more particularly, it is set, and similarly, for example, it is injection-molded, and the third lens region 7 is molded as a die with this the first lens region 5 and the second lens region 6, is molded multi-layer as the first, as a result of this, lens region 5 the second lens region 6, even more particularly, is molded multi-layer as the first lens region 5 and the second lens region 6 the third lens region 7, and it is. Or, For example, the first lens part 5 and the second lens part 6 are molded by injection molding separately respectively, the the first lens region 5 and the second lens region 6 is set at a die next, and similarly, for example, it is injection-molded, and the third lens region 7 is molded, as a result of this, is molded multi-layer, and the third lens region 7 becomes the first lens region 5 and the second lens region 6. In addition, Order is not limited to the example in the first lens part 5 of this lens 4 and the second lens part 6 and a process of multilayered molding with the third lens part 7. By way of example only, After molding the second lens part 6 or the third lens part 7 earlier, multi-layer molds the first lens part 5, and Ryo does, after molding the first lens region 5 or the third lens region 7 earlier again, multi-layer may mold the second lens region 6.

[0011]

The first lens part 5 provided the back side with group of appropriate prism elements 50 from transparent resin as shown in FIG. 1. The second lens part 6 does the frame shape that provided central part with open hole 60 from opaque resin as shown in FIG. 2, all outskirts of the back side of an edge are provided with bent 61, it turned around, and it was crowded, and one end (a thing of this illustration, left end) was provided with department 62. It turns around, and it is crowded, and the third lens part 7 provides one end (a thing of this illustration, left end) with department 72 from transparent resin as shown in FIG. 3, a part to one end was provided with open hole 75 from central part and the back side of a part to other end was provided with appropriate prism element group 70 from central part. As a result of this, It is crowded bent 61 is had in all outskirts of the back side of an edge and and lens 4 turns around in one end (a thing of this illustration, left end), and department 62 and 72 are had , even more particularly, appropriate prism element group 50 and 70 are had on the back side of a part to other end from central part , even more particularly, it is a part of a back side of an edge again, and an opaque portion (the second lens part 6) of penumbra of bent 61 and bent 61 is had. In addition, The first lens part 5 and the second lens part 6 and colors of the third lens part 7 can be put together for a function of a tool for light to use, and it is decided. By way of example only, It is colored amber in that case of red, a turn signal lamp in the case of a stop lamp and tail lamp, and it is colorlessness in that case of back lamp.

[0012]

Thus, for example, bent 61 of lens 4 is bonded to reentrant 11 of housing 1 by the twelfth class hot melt, and it is sealed, an image forms lantern 13 with this housing 1 and lens 4, because *hai** does source of light valve (not shown) in the lantern 13, a tool for vehicle business light is constructed as.

[0013]

Even if the root of bent 61 watches the front of lens 4 in what is covered with the second lens region 6 of opacity resin in a device for vehicles of the present invention in this example suffering from constitution as shown in the above from direction of arrow of the FIG. 6 inside , as shown in FIG. 3, the root of bent 61 is not seen. In addition, Even if it was a back side of an edge of lens 4, and, as shown in FIG. 6, mud 3 bonded to an outside part than bent 61, because the part is the second opaque resinous-lens part 6, and is covered , as shown in FIG. 3, a dirt of an edge of lens 4 is not outstanding. Thus, A look of an edge of lens 4 is preferable.

[0014]

Figure 7 - figure 9 shows the second example of a device for vehicles of the present invention , as for FIG. 7, one part sectional view of the state that multi-layer molded the second lens region as in the first lens region, FIG. 8 cross a lens in a housing, and one part expanded sectional view of an essential part of the state that was able to be accompanied, FIG. 9 are IX *yashizu* in FIG. 8. Among figures, figure 1 - figure 6 and figure 11 - FIG. 15 and like signs show the same thing. As for the thing of this example, group of prism elements 50 of the first lens part 5 and prism element group 70 of the third lens region 7 and unevenness provide the front of the second lens part 6 with reversed character (a group of prism elements) 66, multi-layer molds the third lens region 7 as this the first lens region 5 and the second lens region 6, and it is. Because a person of this example becomes from the constitution, it is seen as if the front of lens 4 is lasted for as shown in FIG. 9 judging from the front, and prism element group is put for direction of arrow of the FIG. 8 inside with lens 4 to suffer from , even more particularly, is improved a look of lens 4. In addition, In this particular embodiment, a part corresponding to the second lens part 6 is provided with prism element group same as group of prism elements 50 of the first lens part 5 and prism element group 70 of the third lens region 7 among the back side of the third lens part 7, multi-layer may mold the second lens region 6 as the the third lens region 7.

[0015]

FIG. 10 is a one part sectional view of an essential part of the lens which showed the third example of a device for vehicles of the present invention. Among figures, figure 1 - figure 9 and figure 11 - FIG. 15 and like signs show the same thing. As for the thing of this example, dorsal side *madenotokoromade en** of the second lens part 6 does extensions 54 from an edge of the first lens part 5, a back side of the extensions 54 was provided with bent 55. In other words, Of lens 4 , at a minimum, it was a part of a back side of an edge, and perimeter of bent 55 was molded with the second lens region 6 of opaque resin. A thing of this example can achieve operation/working-effect same as a thing of the first example.

[0016]

In addition, In the example, lens 4 suffers from three lenses part five or six, seven multilayered molding, but even a thing comprising multi-layer molding of two lenses region of lens region or higher than 4 is preferable. In addition, The example explained an example used to a tool for light for vehicles such as

riyakonbinesyonranpu, but the present invention can be used at a tool for other vehicle business lights, *riyafinissya* such as a front turn signal lamp or fog light, *ganissyu* housing and a vehicle business device comprising lenses.

[0017]

[EFFECT OF THE INVENTION]

Because, at a minimum, it was a part of a back side of an edge, and, as is apparent from the above, the device for vehicles of the present invention molded a penumbra of a bent in materials of opacity among lenses comprising multilayered molding, because the root of a bent is covered with a part of materials of opacity, even if the front of a lens is watched, the root of a bent is not seen. In addition, Even if it was a back side of an edge of a lens, and mud bonded to an outside part than a bent, a dirt of an edge of a lens is not outstanding in the part being hidden with a part of materials of opacity. Thus, A look of an edge of a lens is preferable.
